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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,939	10/05/2001	Yasuhisa Ando	214779US3	3525

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EXAMINER

TAMAI, KARL I

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/970,939

Applicant(s)

ANDO, YASUHISA

Examiner

Tamai IE Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5/1, 6/1, and 7/1 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 4, 5/2, 5/3, 6/2, 6/3, 7/2, 7/3, and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. Figures 6 and 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the displacement member supporting the first slider to the substrate is also supporting the first slider to the second supporting the second slider must be shown or the feature canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Objections***

4. Claims 7 and 8 are objected to because of the following informalities: Claim 7 does not provide antecedent basis for "said sliders". Claim 8 does not provide antecedent basis for "the outer elastic beam". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 is vague and indefinite because it is unclear how "the displacement member" supporting the first slider to the substrate is also supporting the first slider to the second supporting the second slider.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 5/1, and 6/1 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ozaki et al. (Ozaki)(JP 05-116,757). Ozaki teaches a slider displacement direction conversion mechanism an electrostatic actuator comprising at least one electrostatic actuator 15 which generates the electrostatic force parallel to a substrate surface, at least one slider 1 which is displaced under the force from the electrostatic actuator, and at least one elastic beam 2 fixed to the substrate supporting said slider 1, wherein said elastic beam is a displaceable member which entire or locally supports said slider, and wherein said displaceable member is easily displaced in a direction different from a displacement direction when said slider is subjected to the force both parallel and perpendicular to the substrate. The beams 2 mounted on the front and rear portions of the slider 1, and are easily displaceable in any direction.

9. Claims 1, 5/1, and 6/1 are rejected under 35 U.S.C. 102(b) as being anticipated by Saif et al. (Saif)(US 5862003). Saif teaches an actuator with a slider 40 having an electrostatic actuator 24 with an elastic beams 42, 44 fixed to the substrate at a actuator. Saif teaches the beams having displacement members 68, 82, 84. The beams are easiliy displaced in a direction other than perpendicular to the substrate. The slider 40 has beams 42, 44 at the front and back with are easiliy displaceable in the X, Y, or Z direction (end of col. 7 beginning of col. 8). There the displacement members of the beams inherently supports the first and second sliders to each other and the substrate because the first and second sliders are integrally formed.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saif et al. (Saif)(US 5862003) and Fan et al. (Fan)(Self Assembled Microactuated XYZ Stages for Optical Scanning and Alignment). Saif teaches the displacement member Saif teaches every aspect of the invention except two actuator where the forces parallel to the substrate cancel to move the slider upward. Fan teaches (figures 2a-2c) two actuators where the opposite displacement is cancelled to move the stage perpendicular to the substrate. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the actuator of Saif with the two actuators of Fan to provide an xyz actuator for fine positioning of a lens.

***Allowable Subject Matter***

12. Claims 2, 3, 4, 5/2, 5/3, 6/2, 6/3, 7/2, 7/3, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2834

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703) 308-1371. The facsimile number for the Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Karl I Tamai  
PRIMARY PATENT EXAMINER  
August 15, 2003

A handwritten signature in black ink, appearing to read 'Karl I. Tamai', with a long, sweeping horizontal line extending to the right.

KARL TAMAI  
PRIMARY EXAMINER